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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,292	09/29/2003	Hironori Hasei	9319G-000567	3126
27572	7590	12/22/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			TADESSE, YEWEBDAR T	
			ART UNIT	PAPER NUMBER
			1734	
DATE MAILED: 12/22/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,292

Applicant(s)

HASEI ET AL.

Examiner

Yewebdar T Tadesse

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 and 7-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date Sep/03; Jul&Nov 04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group II in the reply filed on Nov.30, 2004 is acknowledged. The traversal is on the ground(s) that all groups are sufficiently related to each other that an undue burden would not be placed upon the examiner. This is not found persuasive because as shown in paragraphs 2-6 of the Election/Restrictions requirement mailed on Nov. 17, 2004, the inventions are distinct each from the other because the apparatus can be used to deposit a non-conductive liquid on the substrate and the process or the apparatus can be used to make materially different product-a thin film on a running paper web. As such, the non-elected and elected inventions are patentably distinct invention whose examination together would place an undue burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 1-4 and 7-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/30/2004.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Seki (US 2003/0137242 A1).

Seki discloses (see Figs 11, 15 and paragraphs 14, 161-162) a thin film-manufacturing device (an apparatus for manufacturing a display device), which is provided with a liquid drop-ejecting device (ink jet head H1) for ejecting a liquid drop to a substrate and a surface treatment device (plasma treatment device 50 performing a lyophilic, liquid repellency and other treatment steps) for performing a surface treatment for a surface of the substrate. Seki further teaches the relationship between the lyophilic properties of the substrate (pixel electrode) and the contact angle of the composition discharged to the surface of the substrate (pixel electrode). Seki's surface treatment device is capable of performing a surface treatment such that a contact angle of the liquid drops ejected from the liquid drop-ejecting device is in predetermined range including (15°-45°).

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kobayashi (US 2003/0008217 A1) discloses (see paragraphs 128-134) a method of modifying the layer of substrate wherein the contact angle formed on the lyophilic areas is in predetermined range (smaller than 10°). Kobayashi et al (US

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2003/0059686 A1) teaches (see paragraph 23) in the process of treating the surface of the substrate, wherein the contact angle of the wettability –changeable layer of the exposed portion of the pattern-forming substrate is 30 degrees or less (overlapping the range of 15°-45°). JP-10326559 also teaches (see English Translated Abstract) in manufacturing image forming device, a hydrophobic treatment is performed to the substrate to control the contact angle of a surface with the droplet at 20-50 degrees (overlapping range of 15°-45°).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM-4: 30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Yewebdar T Tadesse
12/16/04


CHRIS FIORILLA
SUPERVISORY PATENT EXAMINER
Au 1734